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OECD/INES/NETWORK A

# Review of Assessment Activities

*Issue 13* *May 2001*

## In This Issue

The Spring 2001 newsletter's main article discusses the systems in place in Network A countries to measure student achievement. It first looks at national assessment programs designed to monitor the status of the overall system or attainment of the curriculum. Then, it looks at national student testing programs in which results are viewed at an individual level, as well as a system level, to inform administrators and educators about the status of schools and teachers about their students' progress. Finally, it briefly reviews examination systems, which certify students for school-leaving and further study or occupational advancement. This article is an update from two previous reviews of assessment activities in Spring 1995 and 1998.

Also included in this issue is a country highlight focusing on the Czech Republic. Read about the Czech Republic's education system and how assessments and examinations (entrance and final examinations) are conducted at the student level, what types of assessments occur at the school level, and the various international assessments in which the Czech Republic takes part. Also learn about the *White Paper Proposal for National Assessment*, a recent proposal for changes in education policies, including monitoring. As usual, the newsletter also provides updates on Networks A, B, and C, and the BPC, as well as a brief review of assessment activities occurring in member countries between January and June 2001.

We thank all those who contributed to the newsletter, including many Network A country representatives and newsletter contacts. Special thanks are due to Iveta Kramplova and Jana Strakova from the Institute for Information on Education in the Czech Republic for authoring the article on the Czech education system, and to Allan Nordin of Sweden and Jaap Scheerens and Maria Hendriks of the Netherlands for updates on Networks B and C. We appreciate your efforts in keeping us informed of activities from around the INES Project. We hope you enjoy the latest newsletter!

## Measuring Student Achievement

### Assessment, Student Testing and Examination Programs

In today's global society, with changing social, political, economic, and technological demands, countries are embracing education reforms to better develop students' knowledge and skills and help shape them into responsible and productive citizens. Of course, all around the world, teachers assess whether their students are learning through tests and classroom activities. However, on a larger scale, countries are undertaking efforts to monitor student achievement to understand if education policy changes are needed to improve their systems of learning, to monitor the progress of individual students, and to certify that students are prepared to continue to the next level of education or work.

We recently asked Network A member countries to tell us about such activities as they occur in their countries. Among the respondents,[1] we found that a range of activities are underway to evaluate system and student performance, which can be organized in three broad categories:

[1] The countries that provided information for this newsletter included: Belgium (French community), Czech Republic, Germany, Ireland, New Zealand, Norway, Portugal, Sweden, Switzerland, the United Kingdom, and the United States.

- Large-scale national assessment programs focused on monitoring overall student achievement and examining factors that relate to achievement;
- Student testing programs, which are national in scope, but which are focused on providing information at the student level for monitoring both student and system outcomes; and
- Examinations for measuring student achievement for the purpose of certification or advancement to the next grade or level of education or to a particular occupation.

Assessments programs, as in the first category, utilize standardized instruments in which all students are asked sets of equivalent questions, given the same amount of time to complete the assessment (except in certain cases of students with special needs), and marked externally according to pre-determined guidelines. Assessments also often include background questionnaires so that achievement results may be analyzed and factors that may contribute to achievement may be understood.

With student testing programs, as in the second category, again, a standardized instrument (or set of items) is developed, which is administered to students. In some cases, the testing is voluntary and in other cases, it is required of all students at a particular grade level. The grading may be external (by researchers) or internal (by teachers), and the purpose may be purely formative (for teachers to learn where their students are) or summative (to assess what students have learned or to inform a grade). What makes testing systems like assessment programs is that the results can be aggregated for a system-wide look at performance,[2] whereas the individualized aspects remind us of the next category, examination systems.

Examinations, as in the third category, are used to evaluate student achievement at key points in the education system. Examinations serve the purpose of certifying students to advance to the next grade or school level or to a particular occupation or additional vocational training. Although national statistics may be (e.g., passing rates) reported, the purpose of examination is for individual students' advancement or credentials.[3]

## *National Assessment Programs*

Four responding countries (Ireland, New Zealand, Portugal, and the United States) described large-scale assessment systems that are used to periodically examine what students in their countries know and can do. The assessment programs in Ireland and the United States have been around the longest, essentially since the 1970s (though not necessarily in perfect continuity), while the programs in New Zealand and Portugal are more recent, coming into existence in the 1990s. In fact, the system in Portugal is very new and not yet as regularized as those in the other three countries.

[2] Of course, in countries where participation is voluntary, an aggregated score would not necessarily be representative of the whole population.

[3] Note that several respondents also told us about student assessment at the classroom level, in which tasks and activities to evaluate students are both designed and administered by teachers and vary from class to class. While this forms an important part of student assessment, it is not relevant to this newsletter, which focuses on more systematic activities.

In these countries, students are assessed in a range of subjects and at multiple grade levels. All four of these countries, however, assess students in reading language and mathematics, and all of them include an assessment at the 4th-grade level.

In each of these cases, a nationally representative sample is drawn to obtain a national picture of student performance. This is one of the characteristics, along with the lack of disaggregation of results to the individual level, that distinguishes the programs in this section from the activities discussed in the following sections.

- The national assessment program in **Ireland** consists of assessments in English reading, mathematics, and Irish language (oral language and reading). Each subject is targeted to a different grade (mathematics in the 4th grade, English reading in the 5th, and Irish in the 6th) and is assessed on a staggered five-year cycle. The assessment in English reading was recently re-launched in 1998, mathematics in 1999, and the assessment of Irish is planned for 2002.
- In **New Zealand**, the National Education Monitoring Program (NEMP) assesses a three percent sample of students in the 4th and 8th grades annually in different subjects. The program is designed to cover 12 subjects in 4-year cycles, which thus allows trend data for nearly all curricular areas. The second 4-year cycle of the NEMP began in 1999, and the subjects to be assessed this year are mathematics, social studies, and information skills.
- **Portugal** reported that periodic national assessments are administered to students in grades 4, 6, and 9, to determine if reform efforts are necessary to improve the quality of education in the school system. A pilot assessment of Portuguese language was administered in 1999/2000 in the 4th grade, and an assessment of Portuguese and mathematics was administered in 2000/2001 in the 4th and 6th grades.
- Finally, the **United States** has an ongoing national assessment program, the National Assessment of Educational Progress (NAEP), referred to as the "nation's report card." NAEP has several components, including national NAEP, long-term trend NAEP, and state NAEP. National NAEP assessments measure students' knowledge and skills in the 4th, 8th, and 12th grades and annually cover different subjects (i.e., reading, mathematics, science, writing, U.S. history, civics, geography, and the arts). It provides results at the national level and by geographic region.

  Because national NAEP has evolved over time to keep up with advancements in assessment, a long-term trend component, drawing on the instruments and procedures originally used for national NAEP in the 1970s, was designed in order to allow valid comparisons of student achievement over time. Long-term NAEP assesses students in reading, mathematics, and science at ages 9, 13, and 17 and in writing in grades 4, 8, and 11. Also, because national NAEP does not allow for state-by-state breakdowns, state NAEP was designed to allow states to participate in assessments of reading, mathematics, science and writing at the 4th- and 8th-grade levels. National, long-

term trend, and state NAEP each are on different cycles.

In nearly all these countries, summary reports are produced that are aimed at policy-makers, administrators and teachers, researchers, and the general public.

As two countries (Czech Republic and Germany) mentioned, although there may not be a national assessment program in place, participation in international assessments serves to monitor system-level achievement in these places. The drawback may be that the internationally developed instruments may differ slightly from the curricular emphases within a given country, but the advantage is that the system-level results can be compared with those in other countries. And in **Germany**, oversampling in PISA (the Programme for International Student Assessment), for instance, will allow a Länd-by-Länd breakdown of data, such as might be obtained in a national assessment program. In the **Czech Republic**, schools participating in international assessments also receive reports with their school-level results.

## *National Student Testing Programs*

We also learned from the responses that there are an increasing number of activities that are organized at a national level (i.e., are standardized or centralized) but that are focused on providing results at the school and student level. In most cases, within the countries, these programs are referred to as assessment programs. However, for the purposes of distinguishing them from assessments that are focused primarily on system-level outcomes (which is the most accurate use of the term "assessment"), we refer to these types of activities as student testing programs. They are not assessments in the *strictest* sense, because they focus on individual results and information, yet they are not examinations, as in the next section, because they do not directly affect credentialing or advancement to the next level.

For instance, **Sweden** noted that their national testing program serves multiple functions. First, the use of standardized instruments helps to calibrate grading systems across schools and ensure fairness in student evaluation. Second, the testing program helps to reinforce the new curriculum that was established in 1994. Finally, when the individual scores are aggregated, the program allows a national view of student performance, which, in contrast, is the primary function of the programs described in the previous section.

The programs described in this section generally began, or took their current form, in the 1990s.

- In the **French community of Belgium**[4], there is a voluntary testing program that provides teachers with feedback on the level of knowledge and skills reached by their students in a particular subject. The tests are organized by a department of the school administration and a team of researchers and are conducted yearly in one grade only at the elementary and secondary levels in one of several subject areas, including reading, mathematics, science, and writing.
- In **Sweden**, students in grades 9 through 12 are tested in Swedish, mathematics, and English. Optional tests also are offered in German, French, and science

[4] This newsletter provides information on activities in the French community of Belgium. Activities in the Flemish community of Belgium are conducted under separate authority and thus may differ from those described here.

in grades 10 through 12. (Grade 9 marks the end of compulsory school and grades 10 through 12 mark the years of upper secondary school.) The instruments are developed by university educational institutions; data collection is carried out by the Swedish Bureau of Statistics; and data analysis is handled by the National School Agency. As implied previously in the description of the program's purposes, students' performance on the assessments contributes to their overall school marks.

- In the **United Kingdom**, in *England*, children are tested during four transitional stages of schooling in local education authority run schools. During the first seven weeks of primary school, teachers assess their children in areas of speaking, listening, reading, writing, mathematics, and personal and social development for the purpose of helping them to plan an appropriate curriculum and monitor a child's progress during the year. Currently, there are 90 accredited schemes for this baseline assessment, although there has been some recent interest and movement toward a national scheme that would provide comparable data.

  At the end of three key stages of education—grades 2, 6, and 9—students in local education authority run schools are required to take National Curriculum Assessment tests which are developed and carried out by the Qualifications and Curriculum Authority (QCA). (Students in independent schools also may, and are encouraged, to participate in the program.) In all three key stages, subjects include mathematics, reading, spelling, and writing, and in the latter two stages, students' abilities in mental arithmetic and science also are tested. The tests are marked externally in the latter two key stages (and audited in the first key stage), but are complemented by teacher assessments in these and additional subjects, as well. The purpose of the tests is to determine whether or not students are making sufficient progress through 8 pre-set levels of achievement.

  In *Northern Ireland*, statutory tests have been in place since 1997. The tests relate to the curriculum and are intended, when viewed at the student level, to inform teachers and parents about what students know and how they are progressing, and, when viewed at the system level, to inform the public about how the education system is doing. At the end of Key Stages 1 and 2 (grades 4 and 7) teachers assess their students in English and mathematics by selecting from preset assessment units developed by Northern Ireland's Council for Curriculum, Examination and Assessment (CCEA). The tasks are incorporated into regular classroom activities, therefore, students may not even know they are being assessed. At the end of Key Stage 3 (grade 10), students are administered teacher assessments and external tests in English, mathematics, and science, which are prepared by the CCEA. The English tests are the same for all students. However, for mathematics and science, there are different levels of difficulty and the teacher decides which level the student receives. Students in Irish medium schools also are tested in Irish across the key stages.

In the **Czech Republic**, there are two non-governmental agencies that conduct assessments in schools, on a voluntary basis, and produce results at the student, class, and school level, along with comparative information on the overall average results for participants and averages by regions or categories of students. The purpose of the assessments is for participating schools to obtain comparative information about how their students are doing and to provide individual information that may assist teachers in their pedagogical development.

Again, in the countries with student testing programs, national-level reports often are produced with descriptive statistics about what students know and can do.

### *Examination Systems*

Examinations, though different from assessment programs, which inform policy changes that might be needed at the system level, and testing programs, which inform changes that might be needed at the classroom level, examinations are an important third prong in evaluating student achievement. Most of the responding countries noted having examination systems for the purpose of awarding school-leaving certificates or entrance to further education or professions.

In some countries, examinations systems are centralized.

- In **Ireland**, at the end of compulsory schooling, students in the 9th grade take the *Junior Certificate* examination, which covers the 7th to 9th grade curriculum. A student's results often assist teachers and students in deciding a course of study in upper secondary school. The Leaving Certificate examination is administered to students in grade 12, at the end of upper secondary school, and also covers the curriculum content from the previous three grades. Results are used by students when applying for higher education. Both examinations include oral, written, and practical components.
- Examinations in **New Zealand** are optional, however, the majority of students sit for them in order to continue their studies or gain entrance to some training programs or jobs. Students take the *School Certificate* examination at the end of grade 11 and the *Bursary and Scholarship* examination at the end of grade 13. Both examinations are written, with some internally assessed components.
- In order to complete secondary education, students in **Portugal** also must sit for a final examination, which covers all subjects studied, at the end of 12th grade. Examination results, along with other indicators of achievement throughout the year (e.g., tests, portfolios, and projects), are used to determine eligibility for entrance to a university. For students who have left but wish to re-enter the school system, there also are examinations at the end of the 6th and 9th grades for earning "diplomas of equivalence."
- In the **United Kingdom** *(England)*, the *General Certificate of Secondary Education (GCSE)* examinations are given to students at the end of Key Stage 4 and are the principle means for assessing students' attainment of the National Curriculum between the ages of 14 and 16. GSCEs are offered in a wide variety of subjects, including the Key Stage 4 compulsory subjects: in English, mathematics, science, physical

education, design and technology, information communication technology, and modern foreign languages. Although GCSEs are not compulsory, an overwhelming majority of students take at least one GCSE examination. Together, coursework and examination results are graded on an eight-point scale (A* - G) for the awarding of the GSCE.

**Norway**, too, has an examination system that includes centralized examinations and some locally-determined ones, as well. At the end of lower secondary school (grade 10), students in Norway take a final written examination in one of the following compulsory subjects: Norwegian/Saami, mathematics, and English. Examination marks, together with overall achievement marks, are used for entrance into upper secondary school and informing a course of study. Students also take final examinations in upper secondary school (grades 11, 12, and 13). Students may sit for several exams according to certain rules and guidelines. Some exams are compulsory, and others are drawn by lot; some are centrally set and others are locally set. Like in lower secondary school, examination marks combine with overall achievement marks for students to earn a certificate that, in academic schools, qualifies them for higher education and, in vocational schools, qualifies them for particular trades. The guiding principle for student evaluation in Norway—whether it is central examinations, local examinations, or continuous assessment (with or without grades) in the classroom, which was noted as an integral part of student evaluation—is that testing and marking must accord with national curricular goals.

In other countries, examinations systems, though nearly ubiquitous, are the responsibility of individual schools or, sometimes, regions (e.g., Swiss cantons, German *Länder*).

- In **Germany**, the 16 *Länder* have primary responsibility for the provision and monitoring of education in Germany. Some *Länder* administer examinations at the end of lower secondary for continuation in academic or vocational secondary school. The school-leaving certificate examination, called the *Abitur*, is administered to students at the end of academic upper secondary school for university entrance purposes. The *Abitur* is determined by individual schools, although some *Länder* administer a standardized written component accounting for 30 percent of the final score. Also, the *Länder* exchange and compare items and results of the *Arbitur* to foster equivalence across the country. The examination at the end of vocational secondary school, on the other hand, is centralized.
- In **Switzerland**, examinations are the responsibility of individual schools. Some schools in some cantons use examinations, along with the school record, at the transition from elementary to lower secondary education or from lower secondary to upper secondary school. At the transition from *Gymnasium* (academic upper secondary schools), students take an examination determined at the school or canton level according to general guidelines. The *Gymnasium* school-leaving certificate, awarded from the final year marks and final examination, allows students entrance into Swiss universities. Students in vocational upper secondary schools also take a final examination,

which, unlike that in *Gymnasium*, is partially centralized. The examination leads to a diploma, which qualifies students for a specialized trade.

The **French community of Belgium** also stated that there are examinations, but that they are decided at the school level. There are some efforts to build standardized examinations, however. For instance, at the end of elementary school, there is an *examen cantonal*, which is intended (but not compulsory) for students at all subsidized schools within particular geographic areas. Similarly, there are some common exams in Dutch that have been recently developed.

One interesting issue that was brought up in two countries was a rising concern that the education system relies too heavily on examination results alone, which may put undue pressure on students to perform in a high-stakes, "once-off" situation or which may not capture the full range of all students' capabilities. In fact, in **New Zealand**, this concern led to the development of a new system, the National Certificate of Educational Achievement (NCEA), which will be implemented in 2002. With the standards-based NCEA, students' achievement will be assessed using a mixture of examinations and internal assessment and credited towards the NCEA, which will eventually be awarded at the end of years 11, 12, and 13. In **Ireland**, there were concerns not only about the pressure on students but about the possible influence their final examination has on upper secondary syllabi and teaching practices.

However, a nationally convened commission opted to leave the system intact, as the examination is a highly regarded test and an important entry-gate into higher education.

### *Impacts of Assessment, Testing, and Examination Programs*

Several respondents described the impacts that programs to measure student achievement have had in their countries. For instance, **Norway** and **Sweden** both noted that programs in their countries helped ensure that standards for grading are being interpreted and applied uniformly across the country. Similarly, **Portugal** mentioned that the standardized end-of-secondary examination added an objective, and perhaps more fair, standard for entrance to higher education.

The **United Kingdom** (*England*) noted that their National Curriculum Assessments have provided valuable information about the growing percentages of students reaching targeted levels of proficiency in different subjects. In particular, information from the program has shown that standards have successfully been raised in the early years of primary education perhaps due to literacy and numeracy programs. In **Ireland**, the role of the reading assessment has had a significant impact—influencing the national dialogue on standards, as well as informing curricular development, teacher training, and other initiatives.

For countries that utilize student examinations (e.g., **Germany** and **Switzerland**), the impacts described are at an individual level—supporting students' advancement to the education or occupation of their choosing.

# Network Updates

## Network A

Since the last newsletter, Network A has met twice: in October 2000 in Bremen, Germany, and in March 2001, in Brussels, Belgium. During and between these meetings, several important tasks have come to completion. First, the draft framework for an assessment of problem solving for PISA 2003 was accepted by members and then by the Board of Participating Countries (BPC). The finalization of the framework and the development of instruments is now the responsibility of the international contractor, working with the guidance of a functional expert group that includes the Chair and experts who undertook the development work for Network A. Second, the Network finalized and approved its indicators for *Education at a Glance (EAG)*, which will be published again in June 2001. In the end, four indicators were included: trends in student achievement in mathematics and science in the eighth grade; trends in distribution of student achievement in mathematics and science in the eighth grade; literacy inequality and income inequality; and gender differences in mathematics and science in the eighth grade.

Work also has been underway for the past several months to explore the analytic possibilities for PISA 2003. The Network developed, for review by members and also the BPC, a strategy for identifying and selecting policy-relevant themes, which may be useful in reviewing the contractor's proposal for a conceptual framework for the context questionnaires and in setting priorities for what the questionnaires should include.

Activities for the summer, which will then be taken up at the next meeting in October 2001, will include: drafting a proposal for a three-year vision for the *EAG* indicators that draws on PISA and IEA studies; drafting the indicators for *EAG* 2002; working with the planning committee (and results from an upcoming survey of members) to develop a long-term strategy for the Network and the collection of information on teaching and learning; and exploring future development for an information communication technology (ICT) assessment. With regard to the latter, the Network is working with members to identify what are their interests and visions, as well as to identify potential experts who could help map the field. Finally, the Network also is working with OECD to publish the nine chapters it originally prepared for the INES General Assembly in September 2000.

## Network B

Network B last met in Neuchâtel, Switzerland on January 29-31, 2001, and two subgroup meetings were held in conjunction with the plenary session. Nineteen countries were represented at the plenary meeting, which began with a presentation of the key discussion points from the INES General Assembly that related to Network B.

The Chair reported that the General Assembly had invited Network B to work on development and implementation of future assessments of the educational attainment and skills of the adult population and of longitudinal follow-up studies of student outcomes. The Network also was invited to assist in development work on the contributions of human and social capital to economic and social development.

Network B's plenary meeting was mainly devoted to reports and discussions of the two subgroups and to a working group session on human and social capital and equity.

The ***Transition*** subgroup reported that:

- Data from the EU Transition Module may be used by Network B, if comparable data can be provided by non-EU-countries.
- A new indicator on unemployment by field of study, which requires additional development work, could compare high-tech fields to other fields.
- Developmental work has started on a new indicator that focuses on early school-leavers (ESL).
- The PISA longitudinal (PISA-L) option was presented, and Network B members showed continued interest in its development.

Following the Transition subgroup discussions, it was decided: that the collection of data on ESL should be fully integrated into OECD's regular collection of data on transition and that data for the past years 1995 and 1996 should be collected along with the data for 2000.

The ***Continuing Education and Training (CET)*** subgroup discussed the possibility of using two new data sources for CET in the future:

- Time Use Surveys (TUS), which the Network will soon explore in more detail; and
- The Second Continuing Vocational Training Survey (CVTS2), EUROSTAT's survey of on-the-job vocational training. The next CVTS2 data collection will be in 2002, and thus Network B will consider indicators based on this data source (and on other possible data sources for non-EU countries) and may include them in *EAG 2003*.

Also, for quite some time, the Network has been discussing how to develop a module to measure participation in continuing education and training. Now that funding for the project has been guaranteed, the Network will hire a consultant to begin developmental work on this CET module. EUROSTAT will assist in this project, since the EU-Labour Force Survey will contain a similar module in 2003.

During the ***working group session on human and social capital and equity***, four temporary working groups made numerous suggestions regarding specific indicators in these fields. The working groups will continue to discuss next steps and will prepare a draft paper on the overall strategy for Network B for discussion at the next meeting.

Network B will meet again in Prague, Czech Republic on October 22-24, 2001.

## *Network C*

Network C last met in Mainz, Germany on November 29-December 1, 2000. Since the last newsletter, Network C's main activities included:

- preparation of indicators for Education at a Glance (EAG) 2001;
- implementation of the Survey of Schools at the upper secondary level; and
- development of a long-term data strategy.

*Education at a Glance 2001* will include three indicators developed by Network C. Similar to *EAG 2000*, Chapter D on Learning

Environment and Organization of Schools will include Network C's indicators on salaries of teachers in public primary and secondary schools, on teaching time and teacher working time, and on total intended instruction time for pupils in lower secondary education. Three additional indicators also have been developed for this chapter outside the Network: gender and age composition of teachers, teacher training in information and communication technology (ICT), and availability and use of ICT in schools.

The primary aim of the Survey of Schools at the upper secondary level is to develop indicators regarding the learning environment and organization of schools at the upper secondary level. The survey addresses four key issues:

- school policies and practices to enhance transition,
- aspects of school functioning,
- human resources, and
- use of ICT.

The first phase of the project (i.e., a classification study and survey design) was completed in March 2000. Phase Two began in September 2000, and activities included (or will include): the development of the sampling plan, finalization of the survey instrument, coordination of the pilot survey and main study, and data processing, as well as cleaning and analysis of data. Results from the survey are expected in May 2002. Seventeen countries are planning to participate: Belgium (Flemish), Denmark, Finland, France, Hungary, Ireland, Italy, Korea, Mexico, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom (England and Scotland), and the United States.

Indicators on teachers have been at the core of Network C's agenda for the past several years. At the INES General Assembly in Tokyo in September 2000, members emphasized their interest in determinants of educational success, which implied to Network C a need to continue work on indicators of *teachers* and expand it, if possible, to the development of indicators on *teaching*. The General Assembly also appeared to welcome additional data strategies, and teacher surveys could be considered an option for the future.

Finally, Network C is planning for the next five-year period, and the following indicators are being considered for (further) development: basic characteristics of teachers (compensation, teaching time/working time, years of experience, age, and gender); pre-service training, qualifications, and teacher induction programs; professional development; job status (and attractiveness and workload); teacher supply and demand; and characteristics of teaching. With regard to the latter, at the next Network C meeting, members will consider conducting an observation study of teaching in collaboration with National Inspectorates and the Standing International Conference of Central and General Inspectorates of Education (SICI), the international coordinating body for the study.

## *BPC Update*

The Board of Participating Countries (BPC) met in October 2000 in Bremen, Germany. Since then, a number of important activities have been underway under the responsibility of OECD or the contractor. In particular, OECD developed an outline for the first PISA 2000 report and solicited additional

proposals for thematic reports from the first cycle. The contractor has been focused on analyzing the preliminary results from 2000 and on activities for 2003, including developing a conceptual framework for the context questionnaires and expanding the mathematics framework, as the major domain for the second cycle.

A next, very important meeting of the BPC occurred on April 18-20 in Paris. The focus of this meeting was on reviewing the outline for the first PISA report, which will be released in December 2001. Countries also had their first opportunity at this meeting to view their results. There will be a special session of the BPC in Ottawa, Canada on July 16-18, 2001, when countries will have an opportunity to review and provide feedback on the draft report.

# *Country Highlight: Czech Republic*

*This article presents an overview of the education system in the Czech Republic and describes assessment practices and their development. The article was prepared by Iveta Kramplova and Jana Straková of the Institute for Information on Education.*

## *Overview of the Education System*

Education is provided for children in the Czech republic starting at the age of three. Children from three- to six-years-old are educated in kindergartens. Attendance is not compulsory; nevertheless, a high percentage of children attend kindergartens, especially in the final grade, when 92 percent are enrolled. At the age of six, children enter basic schools, which provide nine years of compulsory education. The nine years of compulsory education are divided into two stages: the lower grades, from the first grade to the fifth grade, and the upper grades, from the sixth grade to the ninth grade. If they meet entrance examination requirements at the receiving school, students may leave basic school early, at the end of fifth or seventh grade, to enter an eight- or six-year academic program (respectively) at general secondary schools called *gymnazium* (see additional information in the following section). Approximately 10 percent of the age cohort attend a *gymnazium* in this program.

After completing compulsory education at the age of 15, students may choose a secondary school in one of three tracks: general secondary (a four-year *gymnazium*), secondary technical, or secondary vocational (the latter two for a four-year or shorter length of study). Students who plan on attending a university are required to complete four years of secondary schooling in any of the three tracks.

The four-year *gymnazium* program represents an academic track that mainly provides a general education, whereas the four-year programs at technical and vocational schools are less academic, providing a combination of general education and work-related courses. Technical schools, for instance, offer mainly four-year programs with the aim of providing students with professional qualifications in all areas of the national economy: industry, agriculture, civil service, culture, health care and social service. Vocational schools also offer four-year programs and provide general education, occupational training, and training in some technical functions of an operational nature. Courses shorter than four years (e.g., two- and three-year programs) prepare pupils for manual work and similar professions.

About 40 percent of secondary school students attend secondary technical schools;

40 percent attend secondary vocational schools; and 20 percent attend *gymnazium* (10 percent in the four-year program and 10 percent in a longer one).

## *Overview of the Assessment and Examination System*

### Student Level

***Regular Classroom Assessments***

Students are assessed regularly by their teachers and classified on a five-point scale. Such classroom-based assessments are based mainly on oral examinations and written tests with high percentage of open-ended items designed by classroom teachers. The results of these continuing assessments are summarized twice a year in a student report. Along with assessments in each subject area studied, students' behavior is evaluated, as well, on a scale of three points. Students usually receive marks without any elaborating comments. Students who have difficulty may be required to repeat the year.

***Examinations***

***Entrance Examinations***

When applying for secondary schools or universities, students usually have to pass entrance examinations. School and university heads are authorized to decide whether applicants are obliged to sit for an entrance exam, as well as to decide on the content of this examination. At the secondary level, pupils usually take examinations in mathematics and the Czech language, although sometimes a psychological test also is required. In some schools, students are required to demonstrate their talent in a particular subject (e.g. music, art). The most common format for entrance examinations is a written test, with predominantly open-ended tasks.

***Final Examinations***

In the Czech Republic, there are no state-standardized examinations. The only universal examinations are the final examinations administered in secondary schools and required for school leaving. For four-year courses, this final examination is called the *maturita*. Final examinations and the *maturita* are developed at the school level by the school head.

*The final examination in courses shorter than four years in secondary technical and vocational schools* consists of a practical and a theoretical examination in vocational subjects. The nature, content, and format of the final examination is set by the school head. Upon passing the examination, the student receives a certificate.

*The maturita in gymnazium* consists of an examination in the Czech language and literature, a foreign language, and two optional subjects, which are selected by the student from the list of optional subjects which is set down by the school head. The *maturita* is an oral examination, with the exception of a written component for Czech language and literature and foreign language. The written examinations are conducted in April, lasting for a maximum of four hours. The oral component of the *maturita* is administered to students in May and lasts 15 minutes, with 15 minutes of preparation time for the student. Students draw by lottery from 25 to 30 subject topics determined ahead of time by the school head. The *maturita* is passed in front of an examination board. For evaluating performance, the examiner (the student's teacher) uses a five-

point scale, and the board approves the mark by voting. The final evaluation of an examination is done by the examination board, using a three-point scale.

*The maturita in four-year courses at technical and vocational schools* consists of an examination in the Czech language and literature, an optional subject, and vocational subjects, which are determined by the school head. The vocational component includes both theoretical and practical examinations. The approximately 15-minute theoretical examination consists of 25 to 30 subject topics. The practical examination, which can take anywhere from two days to two weeks, includes three to thirty subject topics. The guidelines for the rest of examination are the same as in *gymnazium.*

Technical and vocational schools also provide *a follow-up course*, in which students who completed a course shorter than four years may continue in their studies. These courses last two or three years and end with a *maturita.*

## School Level

There is no state program focused on the assessment of results of individual schools. Quality control is the responsibility of school inspectors who pay regular visits to each school. Nevertheless, there are two non-state evaluation agencies that carry out assessment activities at schools on a voluntary basis, and schools that decide to undertake such assessments cover the costs of participation.

The agencies offer schools the opportunity to measure their outcomes comparatively. The assessment instruments include the following subjects or study areas: Czech language, mathematics, social sciences, science, English language, and German language. Participating schools receive results for their school overall, their individual classrooms, and individual students, as well. Participating schools also receive the overall results for the Czech Republic and individual regions, as well as results broken down by type of school and category of students. Having comparative information like this helps schools in understanding their own results. In addition, the school's overall results and the students' responses, are subject to analyses, which assist teachers in improving their practice.

The schools that are selected for participation in an international survey (see below) also obtain school reports that give them the opportunity to compare their results with the results of other schools in the country.

## National Level

As there is no national assessment carried out on a regular basis, the Czech Republic takes advantage of international assessments that also are used for monitoring the functioning of the whole educational system. In 1991, the Czech Republic joined the International Association for the Evaluation of Educational Achievement (IEA) and participated in the following surveys:

- Replication of the Reading Literacy Study in 1995 (grades 3 and 8),
- Third International Mathematics and Science Study (TIMSS) in 1995 ( grades 3, 4, 7, 8 and end-of-secondary),
- Civic Education (CivEd) Study in 1999 (grades 3 and 8 of upper secondary school), and
- TIMSS-Repeat in 1999 (grade 8).

The Czech Republic also has been participating in the OECD's Program for International Student Assessment (PISA).

The first cycle of the assessment was administered in basic and upper secondary schools in the Czech Republic in April 2000.

## *Upcoming Changes*

### White Paper Proposal for National Assessment

Early in 2001, a White Paper was published that serves as a proposal for changes in education policies, including those regarding assessment and quality monitoring. In the area of assessment and quality monitoring, a new element of school self-evaluation has been introduced. The White Paper also envisages national monitoring and standardized examinations, especially since the Czech Republic was just (in early 2001) divided into 14 administrative regions.

It is hoped and expected that standardized testing will eliminate the entrance examination procedures for tertiary education, which currently are individually set, and ensure that a comparable quality of education is provided in all secondary schools.

### Standardized Component of Maturita Examination

What prompted the decision for reform in the *maturita* examination was dissatisfaction with the present arrangement, which gives individual schools sole responsibility for constructing and administering the examination. Individual students' results are not comparable because they are not based on the same standards, amount, and content of knowledge. As a result, the Ministry of Education decided to include a written standardized component in school examinations in order to ensure the comparability of education provided by individual schools, as well as to simplify entrance procedures for tertiary education. The other parts of the *maturita* remain basically the same as before.

The standardized part of the *maturita* has been designed with two levels:

- An advanced level, which is intended for students who plan on attending a university; and
- A basic level, which is intended for students who do not plan to attend a university.

Students are free to choose which of the two levels to take, according to judgement of their own knowledge and abilities. The standardized component of the *maturita* will be in written format for both levels. There is a compulsory part consisting of three subjects: Czech language, foreign language, and either mathematics or social sciences. There also will be a non-compulsory part, in which students may take examinations in an unlimited number of additional subjects, including: mathematics, social science, foreign languages (English, German, French, Spanish, Russian, Italian), physics, chemistry, biology, history, and geography. These tests will consist mainly of multiple-choice items. Several pilot tests of the standardized examination have been conducted since 1997.

The proposal for standardizing the *maturita* became a part of a new school act that will be discussed in the parliament in Spring 2001. If approved, the standardized examination will be in effect by 2004.

# CURRENT ASSESSMENT ACTIVITIES

Among the countries that responded to our request for information, a number of them described assessment and examination activities that have been in progress since January 2001 and are currently ongoing. Countries have been busy working on instrument development or the finalizing of instruments, analyzing student outcome data, preparing reports on students' achievement, and in some countries, collecting data:

- In **Belgium (French community)**, education officials are preparing for their annual national test, which will be administered in October. This year, the test focuses on fifth-graders' knowledge and attitudes in science.
- In **Germany**, preparations are underway for a classroom-based assessment in German and English called DESI, which will be in both written and oral formats. The main assessment will be given to tenth-graders (15 year -olds) in Fall 2003. A research consortium is responsible for instrument development, management and evaluation, and a national commission has been convened in order to build consensus among the 16 Länder.
- In **Ireland**, the Educational Research Center at St. Patrick's College, with assistance from the Linguistics Institute of Ireland, currently is involved in developing instruments for an assessment in Irish (oral language and reading) for students in grade 6. The assessment will become part of the national assessment program, with its five-year cycle beginning in 2002.
- Many activities are underway in relation to the National Education Monitoring Program (NEMP) in **New Zealand**. Results from last year's assessments are being analyzed, and the NEMP 2000 preliminary reports are being drafted for review by the Ministry of Education and their advisory group. Assessment tasks for the 2001 round of assessments are being finalized in the areas of mathematics (numeracy skills), social studies, and information skills (library and research). Initial plans for the NEMP 2002 assessments also are in the works. The Assessment Resource Banks (ARBs) program continues to review items to include in its resource banks, and currently is working on integrating with the *Te Kete Ipurangi*, a bilingual (English and Maori) on-line learning center that allows school communities to communicate with each other, as well as access links to education-related materials and resources.
- In **Sweden**, in January 2001, instruments for the mathematics, Swedish, and English assessments were fine-tuned. Data collection began in March and will continue through May in grades 9 through 12. Scoring of the assessments will take place through June. The results will be analyzed in the fall, and a report on students' achievement will be prepared for November 2001.
- In the **United Kingdom** (*England*), schools will administer the national curriculum assessment to Key Stage 2 and 3 students in the areas of reading, writing, spelling, mathematics, mental arithmetic, and science. Key Stage 1 students will be assessed in all areas

except mental arithmetic and science. Additionally, teacher assessments in all three key stages in English, mathematics, and science began in January. External examiners will complete marking of the student and teacher assessments in July 2000.

- In the **United States,** the National Assessment for Educational Progress (NAEP) conducted its main national assessment between January and March. This year, NAEP assessed students' performance in geography and U.S. history in the 4th, 8th, and 12th grades.

This newsletter is published under the auspices of Network A. Network A, which is primarily concerned with indicators of student achievement is one of three working groups that are part of OECD's international Indicators of Education Systems (INES) Project. The newsletter is prepared by Eugene Owen (Network A Chair) and Jay Moskowitz, Maria Stephens, and Yasmin Shaffi of the American Institutes for Research with contributions from Network A members.

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